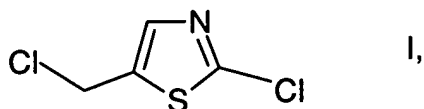




APPENDIX

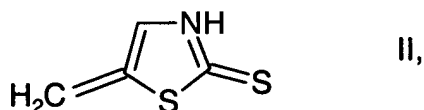
Appellants are appealing the final rejection of claims 1 – 7, 9, 10, 12, 13 and 69 which read as follows:

1. A process for preparing a compound of the formula



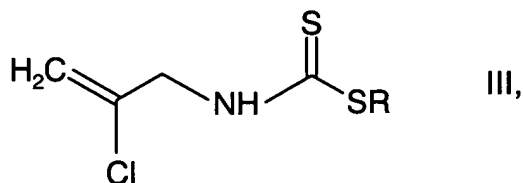
which comprises

a) reacting a compound of the formula



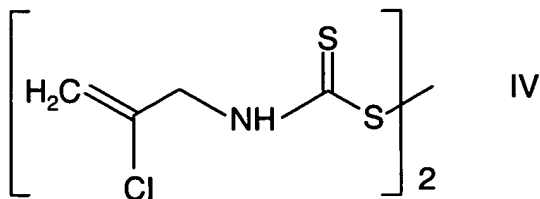
in free form or in salt form, with a chlorinating agent, or

(b) reacting a compound of the formula



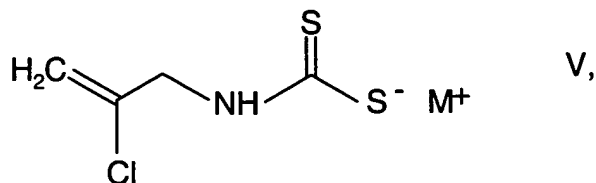
in which R is C₁-C₆alkyl, C₃-C₆cycloalkyl or an unsubstituted or mono- to pentasubstituted aryl or aryl-C₁-C₄alkyl group, where the substituents are selected from the group consisting of halogen and C₁-C₄alkyl, with a chlorinating agent, or

c) reacting a compound of the formula



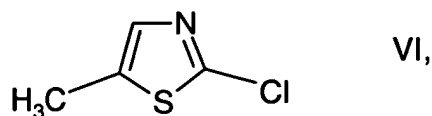
with a chlorinating agent, or

d) reacting a compound of the formula



in which M^+ is an alkali metal ion, one equivalent of an alkaline earth metal ion or is a nonalkylated ammonium ion or an ammonium ion which is alkylated with from one to four identical or different alkyl radicals, with a chlorinating agent, or

e) reacting a compound of the formula



in the presence or absence of a free-radical catalyst, with a chlorinating agent, or

f1) first reacting the compound of formula II or the compound 2-mercapto-5-methyl-thiazole, in each case in free form or in salt form, with a chlorinating agent, and

f2) subjecting the compound of formula VI to further reaction, with or without isolating it, with a chlorinating agent in accordance with variant e), or

g) subjecting a compound of formula V either

g1.1) first to treatment with a base and

g1.2) the compound of the formula II, in free form or in salt form, with or without isolating it, to further reaction with a chlorinating agent in accordance with variant a) or in accordance with variant f1/f2), or

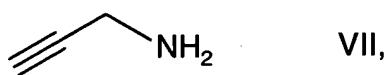
g2.1) first to reaction with a compound of the formula RX in which R is as defined for the formula III and X is a leaving group, and

g2.2) the compound of formula III, with or without isolating it, to further reaction with a chlorinating agent in accordance with variant b), or

g3.1) first of all to reaction with an oxidizing agent, optionally in the presence of a base, and

g3.2) the compound of the formula IV, with or without isolating it, to further reaction with a chlorinating agent in accordance with variant c), or

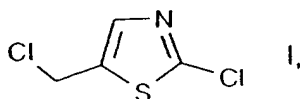
h1) reacting the compound of formula



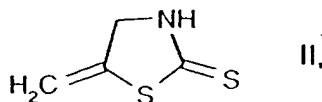
first of all with carbon disulfide, optionally in the presence of a base, and

h2) further reacting the compound of the formula II, in free form or in salt form, with or without isolating it, with a chlorinating agent in accordance with variant a) or in accordance with variant f1/f2).

2. A process according to claim 1 for preparing the compound of the formula



which comprises reacting the compound of the formula



in free form or in salt form, with a chlorinating agent.

3. A process according to claim 2, wherein the chlorinating agent is selected from the group consisting of elemental chlorine, Javelle water, N-chlorosuccinimide, phosphorus trichloride, phosphorus pentachloride, sulfuryl chloride, thionyl chloride and mixtures of two or more of these compounds.

4. A process according to claim 3, wherein the chlorinating agent is selected from the group consisting of elemental chlorine, sulfuryl chloride and a mixture of these two compounds.

5. A process according to claim 4, wherein the chlorinating agent is sulfuryl chloride.

6. A process according to claim 2, wherein the solvent is selected from the group consisting of water, strong organic carboxylic acids, aromatic, aliphatic and alicyclic hydrocarbons and halogenated hydrocarbons, and mixtures of these solvents.

7. A process according to claim 6, wherein the solvent is selected from the group consisting of water, formic acid, acetic acid, propionic acid, benzene, toluene, xylene, mesitylene, tetralin, chlorobenzene, dichlorobenzene, bromobenzene, petroleum ether, hexane, cyclohexane, dichloromethane, trichloromethane, tetrachloromethane, dichloroethane, trichloroethene and tetrachloroethene, and mixtures of these solvents.

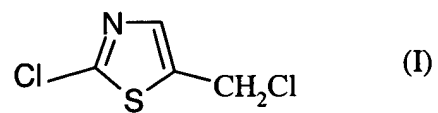
9. A process according to claim 8, wherein the solvent is a mixture of water and dichloromethane.

10. A process according to claim 9, wherein the weight ratio of dichloromethane to water is from about 5 to about 50.

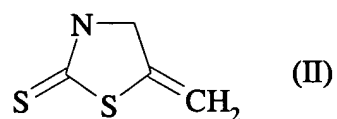
12. A process according to claim 2, wherein the reaction is carried out at from about -10°C to about +40°C.

13. A process according to claim 2, wherein the reaction period is from about 0.1 to about 4 hours.

69. Process for the preparation of 2-chloro-5-chloromethylthiazole of the formula (I)



characterized in that 5-methylene-1,3-thiazolidine-2-thione of the formula (II)



is reacted with a chlorinating agent, optionally in the presence of a diluent.